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L3
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
     83-46-5 REGISTRY
RN
ED
     Entered STN: 16 Nov 1984
     Stigmast-5-en-3-ol, (3\beta)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN
    Nimbosterol (6CI)
CN
     Stigmast-5-en-3\beta-ol (8CI)
OTHER NAMES:
     (-)-\beta-Sitosterol
CN
CN
     (24R)-Ethylcholest-5-en-3\beta-ol
CN
     (24R)-Stigmast-5-en-3\beta-ol
CN
     \alpha-Dihydrofucosterol
CN
     \alpha	ext{-Phytosterol}
CN
     \beta-Sitosterin
CN
     β-Sitosterol
CN
     \Delta 5-Stigmasten-3\beta-ol
CN
     22,23-Dihydrostigmasterol
CN
     24\alpha-Ethylcholesterol
CN
     Angelicin
CN
     Angelicin (steroid)
CN
     Azuprostat
CN
     Betaprost
CN
     Cinchol
CN
     Cupreol
     Harzol
CN
     NSC 18173
CN
CN
     NSC 49083
     NSC 8096
CN
CN
     Prostasal
CN
     Quebrachol
CN
     Rhammol
CN
     Rhamnol
CN
     Sito-Lande
CN
     Sitosterol
CN
     SKF 14463
CN
     Sobatum
CN
     Stigmasterol, 22,23-dihydro-
FS
     STEREOSEARCH
DR
     8003-23-4, 15764-35-9, 76772-70-8, 182512-23-8
MF
     C29 H50 O
CI
     COM
                  ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX,
       CHEMLIST, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB,
       IPA, MRCK*, MSDS-OHS, NAPRALERT, PIRA, PROMT, PS, RTECS*, SCISEARCH,
       SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL, USPATOLD,
         (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

Absolute stereochemistry.

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

13643 REFERENCES IN FILE CA (1907 TO DATE)

245 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

13743 REFERENCES IN FILE CAPLUS (1907 TO DATE)

12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 19.52 19.73

FULL ESTIMATED COST

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FILE COVERS 1907 - 30 Jul 2008 VOL 149 ISS 5 FILE LAST UPDATED: 29 Jul 2008 (20080729/ED)

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http://www.cas.org/legal/infopolicy.html

=> s 13 <> or angelicin?

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SEL L3 1-

L4 SEL L3 1- CHEM: 36 TERMS

SET SMARTSELECT OFF SET COMMAND COMPLETED

COST IN U.S. DOLLARS

SINCE FILE
ENTRY
SESSION
FULL ESTIMATED COST

SINCE FILE
107AL
213232

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S L4 OR ANGELICIN?

662 ANGELICIN?

L6 17958 L5 OR ANGELICIN?

=> s thalassaemia or thalassemia or e4, e5

191 THALASSAEMIA

11 THALASSAEMIAS

202 THALASSAEMIA

(THALASSAEMIA OR THALASSAEMIAS)

5965 THALASSEMIA

399 THALASSEMIAS

6023 THALASSEMIA

(THALASSEMIA OR THALASSEMIAS)

10046 "ANEMIA (DISEASE)"/CT

4543 THALASSEMIA/CT

L7 15736 THALASSAEMIA OR THALASSEMIA OR ("ANEMIA (DISEASE)"/CT OR THALAS SEMIA/CT)

=> s 17 and 16

L8 13 L7 AND L6

=> focus

PROCESSING COMPLETED FOR L8 L9 13 FOCUS L8 1-

=> d ibib abs hitstr 1-13

L9 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:120717 CAPLUS

DOCUMENT NUMBER: 140:157454

TITLE: Use of angelicin and its structural analogs

for the treatment of thalassemia

INVENTOR(S): Bianchi, Nicoletta; Borgatti, Monica; Gambari,

Roberto; Lampronti, Ilaria

PATENT ASSIGNEE(S): Universita' Degli Studi Di Ferrara, Italy;

Associazione Veneta Per La Lotta Alla Talassemia

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P	ATENT	NO.		KIND DATE			APPLICATION NO.						DATE				
W(	WO 2004012729			A1 20040212			WO 2003-IB3462					20030730					
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,	TM,	TN,
		TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW.			
	RW	: GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
ΑU	J 200	32494	72	•	A1	•	2004	0223		AU 2	003-	2494	72		2	0030	730
E	EP 1545506				A1 20050629				EP 2003-766580					20030730			
EI	2 154	5506			В1		2008	0220									
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,
							RO,										
A.	г 386	513 ·	•	•	T	·	2008	0315		AT 2	003-	7665	80		2	0030	730
US	5 200	60111	433		A1		2006	0525	1	US 2	005-	5227	37		2	0051	012
IORI	ORITY APPLN. INFO.:			. :					IT 2002-T0684				4				
									1	WO 2	003-	IB34	62	1	W 2	0030	730
• тъ																	

AB The invention describes the use of angelicin and its structural analogs for the preparation of a medicament for the therapeutic treatment of beta-thalassemia. A structural analog which is particularly preferred for this purpose is bergapten.

L9 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:786184 CAPLUS

DOCUMENT NUMBER: 140:157093

TITLE: Accumulation of  $\gamma$ -globin mRNA in human erythroid

cells treated with angelicin

AUTHOR(S): Lampronti, Ilaria; Bianchi, Nicoletta; Borgatti,

Monica; Fibach, Eitan; Prus, Eugenia; Gambari, Roberto

CORPORATE SOURCE: Department of Biochemistry and Molecular Biology,

University of Ferrara, Ferrara, Italy

SOURCE: European Journal of Haematology (2003), 71(3), 189-195

CODEN: EJHAEC; ISSN: 0902-4441

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of the present study was to determine whether angelicin is able to increase the expression of  $\gamma$ -globin genes in human erythroid cells. Angelicin is structurally related to psoralens, a well-known chemical class of photosensitizers used for their antiproliferative activity in treatment of different skin diseases (i.e., psoriasis and vitiligo). To verify the activity of angelicin, we employed two exptl. cell systems, the human leukemic K562 cell line and the two-phase liquid culture of human erythroid progenitors isolated from normal donors. The results of our investigation suggest that angelicin, compared with cytosine arabinoside, mithramycin and cisplatin, is a powerful inducer of erythroid differentiation and  $\gamma$ -globin mRNA accumulation of human leukemia K562 cells. In addition, when normal human erythroid precursors were cultured in the presence of angelicin, increases of  $\gamma$ -globin mRNA accumulation and fetal Hb (HbF) production, even higher than those obtained using hydroxyurea, were detected. These results could have practical relevance, as pharmacol.-mediated regulation of the expression of human  $\gamma$ -globin genes, leading to HbF induction, is considered a potential therapeutic approach in hematol. disorders, including  $\beta-$  thalassemia and sickle cell anemia.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN 1.9

ACCESSION NUMBER: 1996:689283 CAPLUS

125:309047 DOCUMENT NUMBER:

ORIGINAL REFERENCE NO.: 125:57669a,57672a

TITLE: Erythropoietin liposomal formulation

Nagai, Tsuneji; Yonetani, Yoshe INVENTOR(S): PATENT ASSIGNEE(S): Chugai Pharmaceutical Co Ltd, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
JP 08231417	A	19960910	JP 1995-226610	19950904			
JP 3850468	В2	20061129					
RIORITY APPLN. INFO.:			JP 1994-327067 A	19941228			

PR Erythropoietin (Epo)-containing liposomes are prepared by an evaporation AΒ method which

has high incorporation efficiency and protects Epo from decreases in activity. A reversed-phase evaporation method is used to enclose Epo in a phospholipid (lecithin, cephalin, sphingomyelin, dipalmitoylphosphatidylcholine (DPPC), etc.) membrane that contains sterol-type lipids or sterol glycosides such as .beta.sitosterol, campesterol, stigmasterol, brassicasterol, or cholesterol. Thus, liposomes are prepared from DPPC (105  $\mu M$ ) and SS (soybean sterol, made up of .beta.-sitosterol 49.9%, campesterol 29.1%, stigmasterol 13.8%, and brassicasterol 7.2%) or SG (monoglycosides of SS) (30  $\mu$ M) (7:2 mol ratio). Injected s.c. to rats, this formulation significantly increased the number of circulating

erythrocytes 2 days later. Such liposomes are suitable for treatment of anemia in humans (no data).

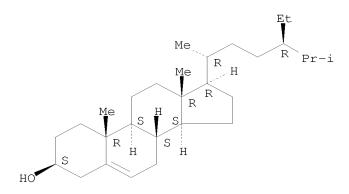
ΙT 83-46-5,  $\beta$  -Sitosterol

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (erythropoietin liposomal formulation for treatment of anemia)

RN 83-46-5 CAPLUS

Stigmast-5-en-3-ol,  $(3\beta)$ - (CA INDEX NAME) CN

Absolute stereochemistry.



L9 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

1988:183297 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 108:183297

ORIGINAL REFERENCE NO.: 108:30033a,30036a

Method and kit for rapid detection of nucleic acid TITLE:

sequences in a sample by labeling the sample INVENTOR(S): Dattagupta, Nanibhushan; Rae, Peter M. M.; Rabin,

Daniel U.; Huguenel, Edward D.

Molecular Diagnostics, Inc., USA

PATENT ASSIGNEE(S): Eur. Pat. Appl., 29 pp. SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE: Pat.ent. LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 235726 EP 235726 EP 235726	A2 A3 B1	19870909 19890510 19930519	EP 1987-102577	_	19870224
R: AT, BE, CH, NO 8700613 CA 1295535 AT 89606 FI 8700923 DK 8701120 ZA 8701554 AU 8769723 AU 599083 JP 62265999 CA 1314794	DE, ES A C T A A A A B2 A C	FR, GB, GI 19870907 19920211 19930615 19870906 19870906 19871230 19870910 19900712 19871118 19930323	AT 1987-102577 FI 1987-923 DK 1987-1120 ZA 1987-1554 AU 1987-69723  JP 1987-51169 CA 1987-553597		19870217 19870220 19870224 19870303 19870304 19870305 19870305
US 5348855 PRIORITY APPLN. INFO.:	A	19940920	US 1991-772625 US 1986-836378 US 1986-943006 EP 1987-102577 US 1987-24643	A A A	19911004 19860305 19861229 19870224 19870311

A method for detecting ≥1 microorganism or polynucleotide sequence from eukaryotic sources in a nucleic acid-containing sample comprises (a) labeling the nucleic acids in the test sample; (b) immobilizing an oligonucleotide or a single-stranded nucleic acid of  $\geq 1$  known microorganism or sequences from eukaryotic sources to make  $\geq 1$ probe; (c) contacting, under hybridization conditions, the labeled single-stranded sample nucleic acid and the immobilized probe to form a hybridized labeled nucleic acid; and (d) assaying for the hybridized nucleic acid by detecting the label. A kit comprises immobilized probe, reagent for labeling the sample nucleic acids, reagent for denaturing the nucleic acids, and hybridization reagents. Urine samples from patients with suspected urinary tract infections were centrifuged, treated with NaOH, and heated to  $100^{\circ}$  to lyse the cells. The suspension was diluted with Na borate buffer and neutralized to pH 7. Biotin-PEGangelicin (preparation described) was added and the mixture was irradiated with a long-wavelength UV lamp for 15 min. The irradiated sample was added to hybridization reagents and hybridization was conducted with probes (whole genomic DNA of Escherichia coli, Klebsiella pneumoniae, Proteus vulgaris, etc.) immobilized onto nitrocellulose paper. Hybridization was detected by an immunogold assay with affinity-isolated goat anti-biotin antibody and Ag enhancement. A spot of human DNA was also present on the paper for detection of leukocytes.

ANSWER 5 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:158569 CAPLUS

DOCUMENT NUMBER: 148:397073

TITLE: Induction of  $\gamma$ -globin mRNA, erythroid

differentiation and apoptosis in UVA-irradiated human

erythroid cells in the presence of furocoumarin

derivatives

AUTHOR(S): Viola, Giampietro; Vedaldi, Daniela; Dall'Acqua,

Francesco; Fortunato, Elena; Basso, Giuseppe; Bianchi,

Nicoletta; Zuccato, Cristina; Borgatti, Monica;

Lampronti, Ilaria; Gambari, Roberto

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of

Padova, Padua, 35131, Italy

SOURCE: Biochemical Pharmacology (2008), 75(4), 810-825

CODEN: BCPCA6; ISSN: 0006-2952

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal English LANGUAGE:

Psoralens, also known as furocoumarins, are a class of photosensitizers largely used in the therapy of various skin diseases. In this study we have evaluated the combined effects of UVA irradiation and furocoumarins derivs. on (a) erythroid differentiation and apoptosis of human leukemia K562 cells and (b) globin gene expression in cultures of human erythroid progenitors derived from the peripheral blood. To prove the activity of a series of linear and angular furocoumarins derivs., we employed the human leukemia K562 cell line and the two-phase liquid culture procedure for growing erythroid progenitors. Quant. real-time reverse transcription polymerase-chain assay (Q-RT-PCR) was employed for quantification of the accumulation of globin mRNAs. The results obtained demonstrate that both linear and angular furocoumarins are strong inducers of erythroid differentiation of K562 cells. From a preliminary screening, we have selected two derivs., 5-methoxypsoralen (5-MOP) and trimethylangelicin (TMA), for which we have investigated their mechanism of action. The cell cycle anal. showed that these derivs. induce, after irradiation, a cell cycle

arrest in the G2/M phase, followed by apoptosis. Mitochondrial depolarization and caspases activation seem to be involved in the mechanism of cell death. In erythroid precursor cells, psoralens in combination with UVA irradiation, stimulate at very low concns. a preferential

increase of  $\gamma$ -globin mRNA. Altogether, these data suggest that psoralen derivs. warrant further evaluation as potential therapeutic drugs in  $\beta$ - thalassemia and sickle cell anemia.

THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 59 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN L9

ACCESSION NUMBER: 1989:550062 CAPLUS

DOCUMENT NUMBER: 111:150062

ORIGINAL REFERENCE NO.: 111:24949a,24952a

TITLE: Nucleic acid sequence determination by hybridization

probe and its use in the identification of

microorganisms and prokaryotic or eukaryotic DNA and

in clinical diagnosis

INVENTOR(S): Dattagupta, Nanibhushan; Rabin, Daniel; Rae, Peter;

Huguenel, Edward

PATENT ASSIGNEE(S): Molecular Diagnostics, Inc., USA

SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
EP 281927	A2	19880914	EP 1988-103221	19880303		
EP 281927	A3	19910417				
EP 281927	В1	19950628				
R: CH, DE, ES,	FR, GB	, GR, IT, LI	, NL, SE			
CA 1314794	С	19930323	CA 1987-553597	19871204		
AU 8812151	A	19880915	AU 1988-12151	19880223		
AU 601021	В2	19900830				
JP 63313598	A	19881221	JP 1988-56517	19880311		
US 5348855	A	19940920	US 1991-772625	19911004		
PRIORITY APPLN. INFO.:			US 1987-24643	A 19870311		
			US 1986-836378	B2 19860305		

AB A method for the detection and identification of microorganisms or nucleic acid sequences in a test sample comprises: (1) labeling the nucleic acids in the sample, (2) contacting the labeled nucleic acids with  $\geq 1$  immobilized probe containing complementary nucleic acids under hybridization conditions, and (3) detecting the label. The labeling compound 4'-biotinyl-PEG-4,5'-dimethylangelicin (I) was prepared In  $\alpha-$  thalassemia diagnosis, a test sample containing nucleic acid was dissolved in 10 mM borate buffer (pH 8.0) to a final concentration of .apprx.20

 $\mu \text{g/mL.}$  To the nucleic acid solution I in aqueous solution was added to a final

concentration of 10  $\mu\text{g/mL}$  . The mixture was then irradiated at long wavelength

irradiation for .apprx.60 min using a black ray UVL  $56\ \text{lamp}$ . The labeled test

sample was hybridized with probes immobilized on a nitrocellulose strip at  $42^{\circ}$  for 16 h and the biotinylated hybrids were detected by a colorimetric or chemiluminescence method.

L9 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:164418 CAPLUS

DOCUMENT NUMBER: 108:164418

ORIGINAL REFERENCE NO.: 108:26955a,26958a

TITLE: Preparation and use of reagents for a single probe

solution-phase hybridization assay for the detection of a nucleotide sequence, and kits containing the

reagents

INVENTOR(S):
Dattagupta, Nanibhushan

PATENT ASSIGNEE(S): Molecular Diagnostics, Inc., USA

SOURCE: Eur. Pat. Appl., 50 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE		
EP 237833 EP 237833 EP 237833	A2 A3 B1	19870923 19910116 19930113	EP 1987-102576	_	19870224		
R: AT, BE, CH,	DE, ES	, FR, GB, GR	R, IT, LI, NL, SE				
CA 1290664	C	19911015	CA 1986-526423		19861229		
NO 8700612	A	19870907	NO 1987-612		19870217		
AT 84574	T	19930115	AT 1987-102576		19870224		
ES 2053457	Т3	19940801	ES 1987-102576		19870224		
FI 8700922	A	19870906	FI 1987-922		19870303		
DK 8701121	A	19870906	DK 1987-1121		19870304		
ZA 8701555	A	19871125	ZA 1987-1555		19870304		
AU 8769724	A	19870910	AU 1987-69724		19870305		
JP 62282599	A	19871208	JP 1987-51170		19870305		
US 4968602	А	19901106	US 1989-442423		19891121		
PRIORITY APPLN. INFO.:			US 1986-836360	Α	19860305		
			US 1986-927613	A	19861114		
			EP 1987-102576	Α	19870224		

AB A particular nucleic acid sequence of clin. significance can be rapidly determined by a homogeneous single-probe hybridization assay. The test sample

containing chemical modified nucleic acids having a label (or a reactive site)

will hybridize with a nucleic acid probe carrying a reactive site (or a label). The hybrids are selectively separated out by contacting then with an

immobilized reactive partner. The hybrid and the reactive partner form a stable bond, and the extent of hybridization can be measured by determining the

label in the immobilized fraction or a decrease in the label in the remaining solution The homogeneous single-probe hybridization method, as described above was employed to detect the presence of  $\alpha$ thalassemia in prenatal samples (no data). The sample nucleic acid and the probe were labeled photochem. with biotin and 4'-aminomethyl-4,5' di-Me angelicin, resp.

ANSWER 8 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:520873 CAPLUS DOCUMENT NUMBER: 111:120873

ORIGINAL REFERENCE NO.: 111:20145a,20148a

TITLE: Treatment of anemia associated with rheumatoid arthritis by increasing blood thyroxine levels, especially using Zanthoxylum simulans extract

INVENTOR(S): Cheng, Theodore

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 3 pp. Cont.-in-part of U.S. Ser. No. 710,628,

> abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent. LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. APPLICATION NO. DATE \_\_\_\_\_\_ \_\_\_\_\_ A 19880830 US 1986-836204 19860227 US 1985-710628 A2 19850311 US 4767626 PRIORITY APPLN. INFO.:

Anemia associated with viral and bacterial infection in patients with rheumatoid arthritis is treated by administration of a composition which increases thyroxine in the blood stream of the patient, thus increasing stem cells in the blood stream. The composition preferably comprises fat-soluble

alkaloid exts. from Zanthoxylum simulans roots. Root- and stem-bark, leaves, and berries of Z. simulans were milled and 150 g of this product was extracted with 3 L MeOH to give dark crystals which contained a major fraction of chelerythrine, and minor fractions of dihydrochelerythrine, oxychelerythrine, N-acetylanonaine, skimmianine, fagarine, sitosterol, sesamin, and 8-methoxy-N-methylflindersine. This extract (50 g) was mixed with EtOH 10 mL, 70% aqueous sorbitol 50, Na CM-cellulose

Na saccharide 2, anethol 0.2, and water 50 g. An antiinflammatory agent, especially 2% ibuprofen, was optionally added to treat the combined symptoms of

anemia and joint inflammation.

ANSWER 9 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:237804 CAPLUS

DOCUMENT NUMBER: 142:285155

TITLE: Pharmaceutical compositions and processed foods

containing lactoferrin and other active ingredients

INVENTOR(S): Ando, Kunio

PATENT ASSIGNEE(S):

NRL Pharma, Inc., Japan Jpn. Kokai Tokkyo Koho, 11 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent. LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

6,

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005068060	A	20050317	JP 2003-299214	20030822
PRIORITY APPLN. INFO.:			JP 2003-299214	20030822
AB Antiarthritic agent	s and p	rocessed foo	ds contain lactoferrin	(I) and
≥1 other active ing	redient	s chosen fro	m vitamin C, E, D, foli	.C

acid, (in)organic Ca salts, glucosamine sulfate, chondroitin sulfate,  $\gamma$ -linolenic acid (II), eicosapentadecanoic acid (sic), docosahexaenoic acid, other  $\omega - 3$  essential fatty acids, colostrum powder, its protein concentrate, red pepper exts., capsaicin, ginger exts., et.c.

Antiallergy agents and processed foods contain I and ≥1 other active ingredients chosen from vitamin C, II,  $\omega$ -3 essential fatty acids, flavonoids, glycyrrhizin, licorice exts., etc. Antianemic agents and processed foods contain I and  $\geq 1$  other active ingredients chosen from vitamin B12, folic acid, Fe gluconate, heme Fe, etc. Also claimed are anti-Alzheimer's, antitumor, hypocholesterolemic, antiarteriosclerotic, antidepressant, antihypertensive, antiobesity agents, etc. I and other active ingredients show synergistic or additive therapeutic effects (no data).

ANSWER 10 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:780671 CAPLUS

DOCUMENT NUMBER: 141:296010

TITLE: Preparation of substituted pyrazoles as modulators of

ATP-binding cassette transporters

INVENTOR(S): Vangoor, Frederick F.; Hadida Ruah, Sarah S.; Singh,

Ashvani K.; Olson, Eric R.; Makings, Lewis R.;

Gonzalez, Jesus E., III; Rader, James A.; Chambers, Fred, III; Miller, Mark T.; Grootenhuis, Peter; Liu,

Yahua

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 174 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.				
		WO 2004-US7492				
W: AE, AG, AL	AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,			
CN, CO, CR	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,			
GE, GH, GM	HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,			
LK, LR, LS	LT, LU, LV, MA,	MD, MG, MK, MN, MW,	MX, MZ, NA, NI,			
NO, NZ, OM	PG, PH, PL, PT,	RO, RU, SC, SD, SE,	SG, SK, SL, SY,			
TJ, TM, TN	TR, TT, TZ, UA,	UG, US, UZ, VC, VN,	YU, ZA, ZM, ZW			
		SD, SL, SZ, TZ, UG,				
		AT, BE, BG, CH, CY,				
		IT, LU, MC, NL, PL,				
SK, TR, BF	BJ. CF. CG. CI.	CM, GA, GN, GO, GW,	ML, MR, NE, SN,			
TD, TG	-, -,, -,	- , - , - , - ~, - ,	, , , , - ,			
US 20050113423	A1 20050526	US 2004-800022	20040312			
EP 1601657	A1 20051207	EP 2004-720345	20040312			
R: AT, BE, CH	DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,			
• •		CY, AL, TR, BG, CZ,				
PRIORITY APPLN. INFO.:	, , , , , ,	US 2003-453978P				
		WO 2004-US7492				
OTHER SOURCE(S):						

GΙ

AB Pyrazoles I [A, B = (un)substituted aryl, heterocyclyl, cycloalkyl; C = H, (un)substituted aryl, heterocyclyl, heteroaryl, cycloalkyl, alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, heterocyclylcarbonyl, or aminocarbonyl; X = H, (un)substituted alkyl, aryl, heterocyclyl, heteroaryl, or ω-substituted n-alkyl] such as II are prepared as inhibitors of ATP-binding cassette (ABC) transporters such as the cystic fibrosis transmembrane conductance regulator (CFTR) for use in the treatment of conditions such as cystic fibrosis, immunodeficiency, inflammatory disease, chronic obstructive pulmonary disease, chronic pancreatitis, or pneumonia. 4-Trifluoromethylbenzoyl chloride and 2-hydroxy-5-fluoroacetophenone are stirred in pyridine for 12 h, after which potassium hydroxide is added and the mixture stirred for 12 h; addition

of hydrazine hydrate to a solution of the product obtained in the first step in ethanol and heating at reflux for 3 h yields II in 30% overall yield as a yellow crystalline solid. II modulates  $\Delta F508-CFTR$  at  $\geq 75\%$  of the effect of genistein on the same receptor. Data on the relative modulation of  $\Delta F508-CFTR$  by some compds. of the invention as compared to genistein is provided.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:56598 CAPLUS

DOCUMENT NUMBER: 116:56598

ORIGINAL REFERENCE NO.: 116:9751a,9754a

TITLE: Defective DNA endonuclease activities in Fanconi's

anemia cells, complementation groups A and B

AUTHOR(S): Lambert, Muriel W.; Tsongalis, Gregory J.; Lambert, W.

Clark; Hang, Bo; Parrish, David D.

CORPORATE SOURCE: New Jersey Med. Sch., UMDNJ, Newark, NJ, 07103, USA SOURCE: Mutation Research, DNA Repair (1991), 273(1), 57-71

CODEN: MRDRBE; ISSN: 0921-8777

DOCUMENT TYPE: Journal LANGUAGE: English

Cells from patients with the inherited disorder, Fanconi's anemia (FA), were analyzed for endonucleases which recognize DNA interstrand cross-links and monoadducts produced by psoralen plus UVA irradiation Two chromatin-associated DNA endonuclease activities, defective in their ability to incise DNA-containing adducts produced by psoralen plus UVA light, have been identified and isolated in nuclei of FA cells. In FA complementation group A (FA-A) cells, one endonuclease activity, pI 4.6, which recognizes psoralen intercalation and interstrand cross-links, has 25% of the activity of the normal human endonuclease, pI 4.6, on 8-methoxypsoralen (8-MOP) plus UVA-damaged DNA. In FA complementation group B (FA-B) cells, a second endonuclease activity, pI 7.6, which recognizes psoralen monoadducts, has 50% and 55% of the activity, resp., of the corresponding normal endonuclease on 8-MOP or angelicin plus UVA-damaged DNA. Kinetic anal. reveals that both the FA-A endonuclease activity, pI 4.6, and the FA-B endonuclease activity, pI 7.6, have decreased affinity for psoralen plus UVA-damaged DNA. Both the normal and FA endonucleases showed .apprx.2.5-fold increase in activity on psoralen plus UVA-damaged reconstituted nucleosomal DNA compared to damaged non-nucleosomal DNA,

indicating that interaction of these FA endonucleases with nucleosomal DNA is not impaired. These deficiencies in two nuclear DNA endonuclease activities from FA-A nd FA-B cells correlate with decreased levels of unscheduled DNA synthesis (UDS), in response to 8-MOP or angelicin plus UVA irradiation, in these cells in culture.

ANSWER 12 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

2002:638196 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 137:165813

Methods and compositions for analyzing nucleic acids TITLE:

Dattagupta, Nanibhushan INVENTOR(S):

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	PATENT NO.					KIND DATE		APPLICATION NO.					DATE				
	20020115074							US 2001-791030					20010220				
					B2		2003										
WO	2002	0.70.7	49		A2		2002	0912		WO 2	002-	US37	82		20020205		
WO	2002	0707	49		А3		2007	0531									
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	UZ,	VN,	YU,	ZA,	ZW									
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑT,	BE,	CH,
							FR,										
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,
		AP,	EA,	AM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	EP,	OA			
AU	AU 2002311759				A1		2002	0919	AU 2002-311759				20020205				
US	2003	0211	532		A1		2003	1113	US 2003-458606				06	20030609			
PRIORITY	Y APP	LN.	INFO	. :						US 2	001-	7910	30	i	A 20010220		
										WO 2	002-1	US37	82	Ī	<i>N</i> 2	0020	205

The present invention relates to methods and compns. for analyzing nucleic AB acids. In particular, the invention provides for methods and combinations for analyzing nucleic acids in a plurality of samples using a plurality of detectably different signature labels and a probe that is hybridizable to each of the target nucleic acids. The invention also provides for a method for quantifying a nucleic acid by analyzing the amount of a label, e.g., a photoactivatable label, attached to the target nucleic acid.

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ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
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ACCESSION NUMBER: 2008:850726 CAPLUS

TITLE: Furocoumarins photolysis products induce differentiation of human erythroid cells

AUTHOR(S): Viola, Giampietro; Vedaldi, Daniela; Dall'Acqua,

Francesco; Lampronti, Ilaria; Bianchi, Nicoletta;

Zuccato, Cristina; Borgatti, Monica; Gambari, Roberto

Department of Pharmaceutical Sciences, University of CORPORATE SOURCE: Padova, Via Marzolo 5, University of Padova, Padua,

35131, Italy

SOURCE: Journal of Photochemistry and Photobiology, B: Biology

(2008), 92(1), 24-28 CODEN: JPPBEG; ISSN: 1011-1344

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

Psoralens, also known as furocoumarins, are a well-known class of photosensitizers largely used in the therapy of various skin disease. In this study we have evaluated the effects of crude pre-irradiated solns. of furocoumarins derivs. on (a) erythroid differentiation and apoptosis of human leukemic K562 cells and (b) Hb synthesis in cultures of human erythroid progenitors derived from the peripheral blood. To prove the activity of a mixture of photoproducts generated by UVA irradiation of the

psoralen derivs. 5-methoxypsoralen (5-MOP) 8-methoxypsoralen (8-MOP), and angelicin (ANG), we employed the human leukemic K562 cell line and the two-phase liquid culture procedure for growing erythroid progenitors. The results obtained demonstrate that pre-irradiated solns, of psoralen derivs, significantly induce erythroid differentiation of K562 cells irresp, of the type of derivative used, suggesting that the active photoproduct(s) share a common structure. Interestingly, solns, of psoralens irradiated in anaerobic conditions do not exhibits erythroid inducing ability, indicating that the effect is mostly due to photooxidized psoralen products. In erythroid precursor cells, psoralens photolysis products stimulates at low concns, an increase of Hb A and Hb F. Altogether, these data suggest that photoproducts of psoralen warrant further evaluation as potential therapeutic drugs in  $\beta$ - thalassemia and sickle cell anemia.